



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/597,698	08/03/2006	Ghyslain Pelletier	P19237-US1	4977		
27045	7590	12/23/2008	EXAMINER			
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024				CHUGHTAI, SARWAT		
ART UNIT		PAPER NUMBER				
4133						
MAIL DATE		DELIVERY MODE				
12/23/2008		PAPER				

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/597,698	PELLETIER ET AL.	
	Examiner	Art Unit	
	SARWAT CHUGHTAI	4133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 03 August 2006.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 24-46 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 24-46 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 03 August 2006 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>08/03/2006</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

1. This Office Action is in response to the Applicants' communication filed on DATE August 3, 2006. In virtue of this communication, claims 24-46 are currently presented in the instant application.

Drawings

2. The drawings submitted on DATE August 3, 2008. These drawings are reviewed and accepted by the examiner.

Priority

3. Receipt is acknowledged of paper submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

4. The information Disclosure Statement (IDS) Form PTO-1449, filed on DATE August 3, 2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosed therein was considered by the examiner.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 24-26, 28, 32-35 and 41-43 rejected under 35 U.S.C. 102(b) as being anticipated by US Patent Application Publication 20030134651A1 (hereinafter Hsu1).

Regarding Claim 24, Hsu1 teaches, “a method of header compression in a communications network wherein a multicast/broadcast multimedia service is available over an air interface (“wireless communication system”, Paragraph 002) to a remote unit, and wherein a media flow (“packet flow”, Abstract) of the multicast/broadcast multimedia service is subject to unidirectional header compression logic (“compression algorithm”, Paragraph 0025) at a compressor;

receiving a request indicating that the remote unit seeks access to the multicast/broadcast multimedia service (“request message”, Paragraph 0054 and Figure 7);

generating, in response thereto, a trigger signal (Figure 4 and “Signaling connection”, Paragraph 0043), external to the header compression logic (“interfaces between the base station and the packet data serving node.....”, Paragraph 0025), which is applied to the compressor to trigger a lowest compression state of the header

Art Unit: 4133

compression logic (“method of header compression that reduces the size of each header while satisfying the accuracy and transmission requirement of the system”, Paragraph 0020).”

Regarding Claim 25, Hsu1 teaches, trigger signal is generated prior to generation of an initial packet of the media flow (“interfaces between the base station and the packet data serving node.....”, Paragraph 0025).

Regarding Claim 26, Hsu1 teaches, absent receipt of the request (Figure 5), the header compression logic is configured to start the lowest compression state upon receiving an initial packet of the media flow and is configured to refresh at the lowest compression state upon expiration of a timeout (“header compression that reduces the size of each header while satisfying the accuracy and transmission requirement system”, Paragraph 0020).

Regarding Claim 28, Hsu1 teaches, a method of header compression in a communications network wherein a multicast/broadcast multimedia service is available over an air interface (“wireless communication system”, Paragraph 002) to a remote unit, and wherein a media flow (“packet flow”, Abstract) of the multicast/broadcast multimedia service is subject to unidirectional header compression logic (“compression algorithm”, Paragraph 0025) at a compressor;

receiving a request indicating that the remote unit seeks access to the multicast/broadcast multimedia service (“request message”, Paragraph 0054 and Figure 7);

generating, in response thereto, a trigger signal (Figure 4 and “Signaling connection”, Paragraph 0043), external to the header compression logic (“interfaces between the base station and the packet data serving node.....”, Paragraph 0025), which is applied to the compressor to trigger a lowest compression state of the header compression logic (“method of header compression that reduces the size of the each header while satisfying the accuracy and transmission requirement of the system”, Paragraph 0020).”

Regarding Claim 32, Hsu1 teaches, trigger signal is derived using one or more broadcast/multicast channel acquisition events initiated by the remote unit (Figure 2 and “receives and processes the IP packets to transmit them to one or more Base Station”, Paragraph 0036).

Regarding Claim 33, Hsu1 teaches, a communications network, comprising: a multicast/broadcast multimedia server which makes a multicast/broadcast multimedia service available to a remote unit over an air interface (“wireless communication system”, Paragraph 002);

a header compressor which subjects a media flow of the multicast/broadcast multimedia service to unidirectional header compression logic for compressing a

headers of the media flow (“packet flow”, Abstract and “the exemplary embodiment support a unidirectional broadcast service. The broadcast.....”Paragraph 0020);

a network node which is operative, upon receiving a request indicating that the remote unit seeks access to the multicast/broadcast multimedia service (Figure 7 and “request message”, Paragraph 0054), to generate, external to the header compression logic (“interfaces between the base station and the packet data serving node.....”, Paragraph 0025), a trigger signal (Figure 4 and “Signaling connection”, Paragraph 0043) which is applied to the compressor to trigger a lowest compression state of the header compression logic (“method of header compression that reduces the size of the each header while satisfying the accuracy and transmission requirement of the system”, Paragraph 0020).”

Regarding Claim 34, Hsu1 teaches, trigger signal(Figure 4 and “Signaling connection”, Paragraph 0043) is generated prior to generation of an initial packet of the media flow (“interfaces between the base station and the packet data serving node.....”, Paragraph 0025).

Regarding Claim 35, Hsu1 teaches, absent receipt of the request (Figure 5), the header compression logic is configured to start the lowest compression state upon receiving an initial packet of the media flow and is configured to refresh at the lowest compression state upon expiration of a timeout (“header compression that reduces the

size of each header while satisfying the accuracy and transmission requirement system", Paragraph 0020).

Regarding Claim 41, Hsu1 teaches, trigger signal is derived using one or more broadcast/multicast channel acquisition events initiated by the remote unit (Figure 2 and "receives and processes the IP packets to transmit them to one or more Base Station", Paragraph 0036).

Regarding Claim 42, Hsu1 teaches, the network node which generates the trigger signal is a node at which the multicast/broadcast multimedia server resides (Figure 4 and "connection for user traffic between the PDSN and the BS", Paragraph 0043).

Regarding Claim 43, Hsu1 teaches, "the network node which generates the trigger signal is one of a packet data serving node (PDSN) (Figure 3 and Figure 4, Element 206)."

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 27, 29-31, 36-40 and 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Application Publication 20030134651A1 (hereinafter Hsu1) in view of US Patent Application Publication 20020141391 A1 (hereinafter Hsu2).

Regarding Claim 27, Hsu1 teaches, the step of generating the trigger signal to trigger a transition to the lowest compression state of the header compression logic upon receipt of an indication (“header compression that reduces the size of each header while satisfying the accuracy and transmission requirement system”, Paragraph 0020).

Hsu1 explicitly fails to teach, of a decompression problem which has occurred at the remote unit.

However, Hsu2 teaches, decompression problem (“decompression information”, Paragraph 0073). It would have been obvious at the time the invention was made to an ordinary skill in the art to combine header compression that reduces the size of each header of Hsu1 with decompression information taught by Hsu2 because they would

provide a transition to the lowest compression state after decompression problem has been indicated.

Regarding Claim 29, Hsu1 teaches, header compression logic (“compression algorithm”, Paragraph 0025).

Hsu1 explicitly fails to teach, robust header compression (ROHC) in a unidirectional mode and the lowest compression state is the Initialization and Refresh (IR) state.

However, Hsu2 teaches, header compression logic (“header compression such as the Robust Header Compression (ROHC)”, Paragraph 0072) is configured to perform robust header compression (ROHC) in a unidirectional mode (“ROHC may be operated in a unidirectional mode”, Paragraph 0074) and the lowest compression state (“state of decompressor”, Paragraph 0074) is the Initialization and Refresh (IR) state (“initialization and refresh (IR) packet is used for this purpose”, Paragraph 0074). It would have been obvious at the time the invention was made to an ordinary skill in the art to combine header compression logic of Hsu1 with Robust Header Compression as taught by Hsu2 because they would provide header compression logic that is configured to perform robust header compression.

Regarding Claim 30, Hsu1 explicitly fails to teach, the decompression problem is compression initialization failure or compression static context damage.

However, Hsu2 teaches, the decompression problem is compression initialization failure or compression static context damage (“residual error in the received compressed header, or failure, etc.”, Paragraph). It would have been obvious at the time the invention was made to an ordinary skill in the art to combine compression logic of Hsu1 with error in the compressed header taught by Hsu2 because they would provide decomposition problem when failure in compression initialization occurs.

Regarding Claim 31, Hsu1 teaches, multicast/broadcast multimedia service (“broadcast/multicast service”, Abstract)

Hsu1 explicitly fails to teach, the indication of a decompression problem is an attempt by the remote unit to reinitiate.

However, Hsu2 teaches, indication of a decompression problem is an attempt by the remote unit to reinitiate (“re-initialize the decomposition process”, Paragraph 0076). It would have been obvious at the time the invention was made to an ordinary skill in the art to combine broadcast/multicast service of Hsu1 with re-initialize the decomposition process taught by Hsu2 because they would provide reinitializing a decompression process problem in multicast/broadcast multimedia service.

Regarding Claim 36, Hsu1 teaches, the step of generating the trigger signal to trigger a transition to the lowest compression state of the header compression logic upon receipt of an indication (“header compression that reduces the size of each header while satisfying the accuracy and transmission requirement system”, Paragraph 0020).

Hsu1 explicitly fails to teach, of a decompression problem which has occurred at the remote unit.

However, Hsu2 teaches, decompression problem (“decompression information”, Paragraph 0073). It would have been obvious at the time the invention was made to an ordinary skill in the art to combine header compression that reduces the size of each header of Hsu1 with decompression information taught by Hsu2 because they would provide a transition to the lowest compression state after decompression problem has been indicated.

Regarding Claim 37, Hsu1 teaches, A communications network, comprising: a multicast/broadcast multimedia server which makes a multicast/broadcast multimedia service available to a remote unit over an air interface (“wireless communication system”, Paragraph 002);

a header compressor which subjects a media flow of the multicast/broadcast multimedia service to unidirectional header compression logic for compressing a headers of the media flow(“packet flow”, Abstract and "the exemplary embodiment support a unidirectional broadcast service. The broadcast....."Paragraph 0020);

a network node which is operative (Figure 1), to generate, external to the header compression logic (“interfaces between the base station and the packet data serving node.....”, Paragraph 0025), a trigger signal (Figure 4 and “Signaling connection”, Paragraph 0043) which is applied to the compressor to trigger a lowest compression state of the header compression logic (“method of header compression that reduces the

size of the each header while satisfying the accuracy and transmission requirement of the system”, Paragraph 0020).

Hsu1 explicitly fails to teach, upon receiving an indication of a decompression problem which has occurred at the remote unit.

However, Hsu2 teaches, an indication of a decompression problem (“decompression information”, Paragraph 0073). It would have been obvious at the time the invention was made to an ordinary skill in the art to combine header compression that reduces the size of each header of Hsu1 with decompression information taught by Hsu2 because they would provide a transition to the lowest compression state after decompression problem has been indicated.

Regarding Claim 38, Hsu1 teaches, header compression logic (“compression algorithm”, Paragraph 0025).

Hsu1 explicitly fails to teach, robust header compression (ROHC) in a unidirectional mode and the lowest compression state is the Initialization and Refresh (IR) state.

However, Hsu2 teaches, header compression logic (“header compression such as the Robust Header Compression (ROHC)”, Paragraph 0072) is configured to perform robust header compression (ROHC) in a unidirectional mode (“ROHC may be operated in a unidirectional mode”, Paragraph 0074) and the lowest compression state (“state of decompressor”, Paragraph 0074) is the Initialization and Refresh (IR) state (“initialization and refresh (IR) packet is used for this purpose”, Paragraph 0074). It

would have been obvious at the time the invention was made to an ordinary skill in the art to combine header compression logic of Hsu1 with Robust Header Compression as taught by Hsu2 because they would provide header compression logic that is configured to perform robust header compression.

Regarding Claim 39, Hsu1 explicitly fails to teach, the decompression problem is compression initialization failure or compression static context damage.

However, Hsu2 teaches, the decompression problem is compression initialization failure or compression static context damage (“residual error in the received compressed header, or failure, etc.”, Paragraph). It would have been obvious at the time the invention was made to an ordinary skill in the art to combine compression logic of Hsu1 with error in the compressed header taught by Hsu2 because they would provide decomposition problem when failure in compression initialization occurs.

Regarding Claim 40, Hsu1 teaches, multicast/broadcast multimedia service (“broadcast/multicast service”, Abstract)

Hsu1 explicitly fails to teach, the indication of a decompression problem is an attempt by the remote unit to reinitiate.

However, Hsu2 teaches, indication of a decompression problem is an attempt by the remote unit to reinitiate (“re-initialize the decomposition process”, Paragraph 0076). It would have been obvious at the time the invention was made to an ordinary skill in the art to combine broadcast/multicast service of Hsu1 with re-initialize the decomposition

process taught by Hsu2 because they would provide reinitializing a decompression process problem in multicast/broadcast multimedia service.

Regarding Claim 44, Hsu1 teaches, a remote unit which receives a multicast/broadcast multimedia service from a communications network over an air interface communications network (“wireless communication system”, Paragraph 002), wherein a media flow of the multicast/broadcast multimedia service is subject to unidirectional header compression logic for compressing a headers of the media flow (“the exemplary embodiment support a unidirectional broadcast service. The broadcast.....”Paragraph 0020) the remote unit comprising: a transceiver for receiving the media flow (“packet flow”, Abstract);

trigger a lowest compression state of the header compression logic (“header compression that reduces the size of each header while satisfying the accuracy and transmission requirement system”, Paragraph 0020).

Hsu1 explicitly fails to teach, a decompressor which is operative, upon encountering a decompression problem with the media flow, to send a request to reinitiate access to the multicast/broadcast multimedia service to the communications network with an expectation that the request to reinitiate access will trigger a lowest compression state of the header compression logic.

However, Hsu2 teaches, a decompressor which is operative, upon encountering a decompression problem with the media flow, to send a request to reinitiate access to the multicast/broadcast multimedia service to the communications network with an

expectation that the request to reinitiate access (Figure 8 and “decompression recovers from a failure, periodic IR packets effectively re-initialize the decompression process”, Paragraph 0076 whereas if there is decomposition error might propagate until the decompression is re-synchronized or re-initialized).

Regarding Claim 45, Hsu1 explicitly fails to teach, the decompression problem is compression initialization failure or compression static context damage.

However, Hsu2 teaches, the decompression problem is compression initialization failure or compression static context damage (“residual error in the received compressed header, or failure, etc.”, Paragraph). It would have been obvious at the time the invention was made to an ordinary skill in the art to combine compression logic of Hsu1 with error in the compressed header taught by Hsu2 because they would provide decomposition problem when failure in compression initialization occurs.

Regarding Claim 46, Hsu1 teaches, header compression logic (“compression algorithm”, Paragraph 0025).

Hsu1 explicitly fails to teach, robust header compression (ROHC) in a unidirectional mode and the lowest compression state is the Initialization and Refresh (IR) state.

However, Hsu2 teaches, header compression logic (“header compression such as the Robust Header Compression (ROHC)”, Paragraph 0072) is configured to perform robust header compression (ROHC) in a unidirectional mode (“ROHC may be operated

in a unidirectional mode", Paragraph 0074) and the lowest compression state ("state of decompressor", Paragraph 0074) is the Initialization and Refresh (IR) state ("initialization and refresh (IR) packet is used for this purpose", Paragraph 0074). It would have been obvious at the time the invention was made to an ordinary skill in the art to combine header compression logic of Hsu1 with Robust Header Compression as taught by Hsu2 because they would provide header compression logic that is configured to perform robust header compression.

Conclusion

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Examiner Sarwat Chughtai, whose telephone number is 571-270-7272. The examiner can normally be reached on Monday to Thursday 8:30 AM to 6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Abul Azad can be reached on 571-272-4100. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) System. Status information for published application may be obtained from either Private PAIR or Public PAIR. Status information for unpublished application is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Application/Control Number: 10/597,698
Art Unit: 4133

Page 17

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SARWAT CHUGHTAI/

Examiner, Art Unit 4133

/ABUL AZAD/
Supervisory Patent Examiner, Art Unit 4133

Application/Control Number: 10/597,698
Art Unit: 4133

Page 18